

V. THE EUROPEAN UNION



A. INTRODUCTION

At the European Council meeting held in Lisbon on March 23 and 24, 2000, the European Union (EU) set the ambitious objective to become the most competitive and dynamic economy in the world. The Council recognized the urgent need for Europe to exploit the opportunities of the New Economy and in particular the Internet. History has shown, however, that European initiatives are many, but their actions are few.

Currently, businesses face many barriers establishing an e-commerce presence in Europe. Differing technical standards and varying regulatory models and approaches to market liberalization have diminished the returns these companies can expect while North American participants in e-commerce are reaping increasing rewards.³⁸

Progress is being made. In 1998, the EU began to deregulate several sectors including telecommunications. On January 1, 1999, the EU adopted the euro as the currency unit for the eleven member states who satisfied the macroeconomic conditions necessary to join the European Monetary Union and who opted to participate immediately. As the EU moves toward a single market and a single currency, more trade barriers will be lowered. These factors, combined with unprecedented increase in Internet access and use throughout Europe, are believed to bode well for the development of European e-commerce.

B. TELECOMMUNICATIONS IN THE EUROPEAN UNION

In the last few years, the European telecommunications services sector has been undergoing radical changes designed to liberalize the industry. Since 1998, the market has been opened to allow interconnection agreements between incumbent operators and new market entrants, building a European data network of huge capacity.

Incumbents hesitant to lose their lucrative analog and ISDN business are dragging their feet over roll-out of broadband services such as DSL. Cable TV operators are beginning to gain market share, though too many are still owned by the state incumbent, a situation generally unfriendly to competition. The EU plans to provide "generalized electronic access to main basic public services by 2003" and "to make available in all European countries low-cost, high-speed interconnected networks for Internet access and other telecomm networks as well as the content for those networks."³⁹

³⁸ OECD Country Study: European Union FY2000. In 1998, the EU had a population of 374.5 million and GDP of US\$7.7 trillion. Europe's GDP grew 2.9 percent in 1998, and then grew modestly in 1999 at 2.1 percent. The economy is expected to rebound to 2.7 percent in 2000. The inflation rate in 1999 was expected to remain low at approximately 1.3 percent. Per capita income in 1998 was approximately US\$20,429. The EU economy is heavily weighted toward the services sector (67 percent value-added in the economy).

³⁹ EU leaders pay lip service to local access network competition By Keith Nuthall, Total Telecom
<http://www.totaltele.com/secure/view.asp?articleID=26610&Pub=TT&ca>

The European mobile telephony market is strong, leading the U.S. both in manufacturing (Nokia and Ericsson are the world's first and third largest manufacturers of hand sets) and technology (95 percent of European mobile phones use digital technology compared with under 50 percent in the U.S., where analogue dominates). Europe also leads the U.S. in application and use of Wireless Application Protocol (WAP), which allows access to the web via hand-held devices such as the Palm Pilot and smart phones.⁴⁰

1. Regulatory Factors

Regulatory Authority

In mid-2000, the European Commission intends to launch the next round of directives updating the rules and regulations governing the sector. These directives include simplifying licensing conditions, giving national regulators greater flexibility to impose access and interconnection obligations, boosting consumer protection and obliging mobile operators to offer number portability.⁴¹

The new proposals are aimed at regulating the behavior of powerful telecommunications firms. Under the plan, the Commission would issue a notice listing those areas of the telecommunications sector where regulation might be necessary to promote competition. National regulators then must decide whether those areas targeted by Brussels warrant regulation in their own national markets. National regulators would only be able to impose regulations in areas on the Commission's list.

The EU would also ask national regulators to indicate sectors where individual firms actually enjoy "substantial market control." If EU officials agree with the national regulators' assessment, they would approve the imposition of "appropriate regulatory obligations" on the companies concerned to prevent them from abusing their market power. Clear, unambiguous rules would be set out for national regulators regarding possible sanctions for violators of the regulations.⁴²

In a significant move, the Commission recently recommended that national telecommunications regulators call on operators with large local networks to offer rival operators 'unbundled' access to the local loop, the copper wiring which runs directly into homes and offices.⁴³ The rival companies would be able to offer new and advanced services, such as lightening-fast data transmission, without having the massive expenditure needed to build their own local loop. This would encourage technological innovation and increase competition among providers, lowering the cost of access to the customer.

If and when the relevant section of this recommendation is accepted, national regulators would be required to ensure operators make facilities available to their competitors on the same terms

⁴⁰ Europe: Region sharpens its high-tech challenge, European Voice, May 3, 2000.

⁴¹ Europe announces telecoms shake-up, Keith Nuthall, Total Telecom

<http://www.totaltele.com/secure/view.asp?articleID=27192&Pub=TT&categoryid=627>

⁴² EU: Commission unveils tough new approach to telecoms, European Voice, May 15, 2000.

⁴³ EU: Programme to help region cash in on Internet, European Voice, May 18, 2000.

as their subsidiaries.⁴⁴ The Commission has set a recommended deadline of December 2000, but as yet only Austria, Denmark, Finland, Germany and the Netherlands have made arrangements for complete unbundling by this date. The European Competitive Telecommunications Association (ECTA) has urged the Commission to fast-track mandatory local loop unbundling in Europe as a necessary step to closing the Internet gap with North America.

Licensing

See previous section.

Accounting System

Research did not uncover any information.

Local Competition

Market access to telecommunications equipment within the EU varies widely among Member States. Most Member States discriminate against non-EU bids in the telecommunications sector. Market access is also impeded through standards and standard-setting procedures, testing, certification and attachment policies.

Available Services

Research did not uncover any information.

Foreign Competition and Ownership

Under the WTO Agreement on Basic Telecommunications Services, eleven Member States have committed to providing market access and national treatment for voice telephony services as of February 5, 1998. Four other States will phase in commitments by 2003. Four Member States qualified their commitments by maintaining foreign investment restrictions. The EU also adopted the pro-competitive regulatory commitments set forth in the Reference Paper associated with the WTO Agreement.

2. Technical and Operational Factors

Spectrum Efficiency and Management

The European wireless sector adheres to a single digital standard known as the Global System for Mobile Communications (GSM). GSM was established early as an open standardized platform by industry and supported by the Commission and national governments and its success is largely attributable to an effective public/private partnership. While each U.S. mobile company must compete aggressively to sell its own particular digital and analog standard, Europe adheres to a single digital standard, enabling European mobile companies to work together on new technologies. The big three European companies (Nokia, Siemens and Ericsson) are now co-operating on '3G,' the third generation of mobile phones. The current generation of mobiles is limited to a data transmission speed of 28.8 kilobits per second, but new 3G phones will be able to send and receive data at broadband speed, or 2 megabits per second.

⁴⁴ ECTA puts pressure on EC over local loop access Emily Bourne, Total Telecom
<http://www.totaltele.com/secure/view.asp?articleID=28304&Pub=TT&categoryid=627>

The proliferation of wireless service raises an important issue - the availability of space on the airwaves to meet the demand for new mobile services. Experts fear that without sufficient spectrum, there will be a lack of competition when 3G services start to take off in a few years' time. Europeans will be emphasizing the need for 3G spectrum in world telecommunications conferences this year.

Network Architecture

Research did not uncover any information.

Infrastructure and Rights-of-Way

Research did not uncover any information.

C. THE INTERNET IN THE EUROPEAN UNION

Like most regions of the world, Internet use is expected to grow quickly in Europe in the near and medium future. Western Europe should have more than 215 million users on the Internet on at least a quarterly basis by 2003, compared with 197 million in the U.S.⁴⁵ By 2003, Western Europe will rank second behind the U.S. in both total e-commerce revenues and B2C revenues. B2C revenues should grow from US\$8.18 billion at the end of 2000 to US\$40.25 billion, or 19.2 percent of the worldwide total, by the end of 2003.

1. Regulatory Factors

Companies establishing Internet and e-commerce operations in Europe face many regulatory challenges. Differing technical standards, varying regulatory models and approaches to market liberalization often lead businesses to operate with higher complexity and costs. The development of e-commerce is driving a movement to harmonize regulations in areas such as banking, consumer protection, privacy, liability and cryptography, among many others. Factors ranging from the availability of skilled labor to tax compliance requirements to differences in healthcare systems impede greater harmonization and discourage new market entrants.

At the same time, the EU approach to standardization has significantly improved. There is now an emphasis on voluntary industry driven standardization and an increasing acceptance of de facto standards. One of greatest obstacles is the lack of an EU patent directive, without which, innovation necessary in the New Economy will be delayed.

Furthermore, there is great need to harmonize regulations restricting cross border distribution and logistical services.

Cost of Access

The traditional argument levied against Europe in terms of internet potential is PC penetration rate, which is generally behind the United States. However, the rise of new technology portals such as 3G mobile communications mitigates this statistic.

⁴⁵ IDC, Internet Commerce Market Model Version 6.1

The cost of access in Europe has historically been 50 percent greater than in the United States; until 1998, monthly subscription charges for Internet access were commonplace. That changed with the launch of Freeserve - a "free" service in the United Kingdom that forced many Internet service providers to adopt the "free" phenomenon.⁴⁶ With so much competition in the long distance market, local access has now become the crucial bottleneck to development.

Only 22 percent of European households have access to the Internet, compared to 50 percent in the United States. The EC wants to bring down Internet access costs by encouraging competition and faster access through private investment. In addition, bringing down access costs will simultaneously stimulate deployment of new Internet technology.

Within Europe, there exists a "digital divide" between countries such as Sweden and Finland, with levels of penetration close to that of the U.S., and the Southern regions with less than 10 percent penetration. This gap is widening, posing a real danger of a "two speed" Europe in terms of Internet access and use. The Commission also plans to use structural funds to ensure that peripheral regions are not left behind in the information economy.

Labor and Immigration Policies

With a limited global pool of IT experts and intensified international competition to attract them, countries across the EU are changing their immigration rules to attract skilled workers. For example, Germany and the UK are introducing new procedures to expedite renewals of work permits, extend the period a permit is valid and, for certain skilled individuals, allow entrance into the country without proof of a specific job offer. The relaxed immigration policies are said to be contributin to anti-immigrant sentiments in some countries. Surveys suggest that many Indian and east European IT professionals are reluctant to emigrate to the EU due to this problem. Many would rather go to the U.S., giving North American yet another advantage in the New Economy.⁴⁷

Government Incentive Programs

Research did not uncover any information.

Content Control/Censorship

The fear that the U.S. will continue to dominate Internet content has led the EU to unveil an initiative to boost the amount of European content on the world wide web.⁴⁸ A key part of the program will involve providing web-content firms with information on financing projects and acquiring investment from venture capitalists. The Commission will also propose an improved system to facilitate copyright clearance from rights-holders for using works such as music, video and art clips in products and services online. Projects aimed at advancing smaller companies and boosting the presence of content using the EU's lesser-spoken languages will also be advanced.

⁴⁶ The Global Internet Opportunity Unfolds, iword.com, <http://www.iword.com/iword51/iword51.html>. "Free" because users still pay per-minute telephone charges, and the telephone company provides a portion of revenues to the ISP.

⁴⁷ EU: Filling the IT skills gap, Business Europe, May 23, 2000.

⁴⁸ EU: Programme to help region cash in on Internet, European Voice, May 18, 2000. The initiative originates from the 'dotcom' summit in Lisbon in March 2000.

2. Technical and Operational Factors

Protocol Standards and Development

Research did not uncover any information.

Language Barriers

The presence of multiple languages has been an issue for the EU because most of the Internet content is in English. The recent explosion of localized content has started to attract more Europeans as they realize the relevance and power of the medium. Europe had approximately one million Internet hosts in 1995, and today Europe is believed to have over six million hosts. According to a MMXI Europe Survey, European home Internet users are catching up with those in the United States in terms of the time they spend online each month. In October 1999, British surfers spent four hours online, Germans spent about five hours online and French users spent an average of three hours on the Internet. The average American home user stays on the Internet for about five-and-a-half hours each month.⁴⁹

Skilled Labor Force

According to a recent Commission survey, Europe does not yet have the skills base to support building the New Economy. The Commission found in 1999 that "the equivalent of 510,000 full-time jobs remained open in the [IT] sector in Europe. Others calculated that this will grow to no less than 1.6 million jobs in 2001."⁵⁰ Recognizing that multinationals will move to other countries to find more skilled labor, Europe has begun to take action to increase their skills base and attract global IT experts to the European economy.

At the meeting of the European Council in Lisbon this year, Member States were challenged to help bolster the IT workforce and computer literacy overall. The Lisbon Summit requested that numerous training and IT awareness programs be implemented through European schools, including ensuring Internet access in all schools of the European Union by the end of 2001.⁵¹ The Lisbon Summit concluded that there is a widening skills gap, especially in information technology. Europe's training systems must adapt to the changing demands of the knowledge society to offer re-training opportunities to workers displaced by rapid change. The creation of a European framework should define new basic skills to be provided through life-long learning and a European diploma for basic IT skills should be established.

Government Incentive Programs

Research did not uncover any information.

⁴⁹ The Global Internet Opportunity Unfolds, iword.com, <http://www.iword.com/iword51/iword51.html>

⁵⁰ Electronic Commerce: a challenge for Europe, Paul Timmers and Joep van der Veer European Commission Information Society Directorate General Electronic Commerce Unit.

⁵¹ eEurope 2002: An Information Society for All, European Draft Action Plan.

D. E-COMMERCE IN THE EUROPEAN UNION

Despite its rapid growth, European Internet penetration remains one quarter of U.S. levels. However, the European Union is in the enviable position of having an internal market of 370 million people using a single currency. Unfortunately, significant gaps still exist between the 15 member countries regarding regulations. For example, Germany unilaterally bans two-for-one offers, lifetime guarantees and heavy discounting, except during specified times of year. Without a single, transparent, coherent legal and regulatory framework, e-Europe will never be able to fully leverage its resources online.

In December 1999, the European Council agreed to the e-commerce directive allowing service providers and e-commerce businesses whose operations comply with their domestic laws to offer services to all Member States.⁵² The Commission hopes to enforce greater security standards for retail e-commerce and bring about the introduction of multifunctional smart cards which could be used throughout Europe regardless of the country of issue. The promotion of online content in languages other than English and making government services available on the Internet are also key goals of the EC.⁵³

Building on the large market share currently held by its mobile providers, Europe could become the world leader in mobile e-commerce. By 2002, European consumers will be able to access video news and sports reports, voice-driven Internet pages, and even X-rays from their 3G mobile phones.⁵⁴ The squabbling over standards in the U.S. means that 3G networks will not be available there until some time between 2003 and 2005, leaving the field open for European providers.

1. Regulatory Factors

Taxation

Recently, the Commission proposed imposing a value added tax (VAT) on services delivered on the Internet. The proposal would require non-EU companies selling more than €100,000 annually of Internet services and paid-for TV to EU customers to register for VAT in an EU member country. The Commission and European industry groups say the plan would correct a market distortion, whereby European companies were obliged to pay VAT on Internet services, while their non-EU competitors do not. This proposal has been criticized by other countries like the U.S. who say it is protectionist and could undermine efforts to agree on international rules on the taxation of e-commerce to be addressed in OECD talks next year.⁵⁵

⁵² Commission proposal encourages Internet shopping, Business Europe, April 11, 2000.

⁵³ European Commission Working Towards "eEurope", NUA Surveys, http://www.nua.ie/surveys/?f=VS&art_id=905355803&rel=true

⁵⁴ The Cell Phone's Future Looks Rosy... In Europe: If you want the latest high-tech phones with fantasy features, you'll soon be able to find them in Prague--but not Peoria, Fortune. <http://www.fortune.com/fortune/technology/2000/01/24/ega.html>

⁵⁵ Financial Times, June 9, 2000.

Privacy

The EU Data Protection Directive, which went into effect in October 1998, aims to balance the protection of an individual's right to privacy with regard to transmission of personal data with the need to facilitate the flow of such information within the EU. The Directive allows for data transfer to third countries if they provide an "adequate" level of protection for the data under their own laws or through international obligations they have undertaken. The ease with which information moves across border will depend upon how individual States define "adequate."

In early 2000, the Commission and the U.S. Department of Commerce reached an agreement on a "safe harbor" system which will allow continuing data flows between the U.S. and the EU and ensure privacy protection for EU citizens' personal information. Under the arrangement, U.S. organizations voluntarily agree to adhere to principles which bridge the gap between the U.S. and the EU systems governing privacy.

Content

Research did not uncover any information.

Content - Intellectual Property Rights

The EU and its Member States support strong protection of intellectual property rights. The Member States are members of all the relevant WIPO conventions and they fully enforce high IPR standards, including those in the TRIPS Agreement.

Registration of trademarks with the European Community Trademark Office (CTMO) began in 1996. The CTMO issues a single trademark valid in all 15 Member States. National marks continue to exist in conjunction with the EU marks.

Patent applications in the EU are governed by the EC patent convention concluded in 1975. In 1999, the Commission began to advance legislation to replace the convention with Community legislation to ensure secure patent protection throughout the EU on the basis of a single patent application.

In 1997, the Commission proposed a Directive to harmonize Member State legislation on copyrights and to establish clear definitions of protected material. The proposal does not cover infringement liability by online service providers. The Directive also requires Member States to implement the obligations in the WIPO copyright and performances and phonograms treaties, and requires approval from the Parliament and adoption by the Council before it takes effect. In January 1998, Member States were also required to transpose into national law the Directive protecting copyrights to electronic and manual databases, an essential element to the sound legal framework for Europe's information society.

A two-part directive proposed on June 25, 1999⁵⁶ will extend existing copyright rules to the Internet. The proposal will provide wide-ranging reproduction rights to copyright owners who will have the exclusive right to authorize duplication of their work. The proposal covers performers and producers of CDs and CD-ROMs as well as broadcasters. Copyright protection

⁵⁶ Directive COM/97/0628 and COM/99/250, OJ C180.

has also been extended to computer software.⁵⁷ Protection covers any form of a program, including hardware or preparatory design material. A third directive grants protection to electronic and paper-based databases that meet the traditional requirement of novelty or innovation, with special protection for producers of databases that do not meet the novelty criteria (such as telephone directories) but represent a substantial investment of time and resources. Copyright protection will be available to databases created within the EU and can be extended to databases produced in third states if their legislation grants similar levels of protection. The EU's competition rules will be applied when necessary to ensure fair competition and prevent abuses of dominant positions.⁵⁸

Security – Encryption and Authentication

In December 1999, the EU removed one of the biggest obstacles to e-commerce by approving a directive on digital signatures. EU telecommunications ministers formally adopted a directive establishing a common legal framework for electronic signatures. To be implemented in 2001, the directive will require all member states to recognize digital signatures as the legal equivalent to handwritten ones, provided they can be certified by a third party and the technology used to make them complies with a series of conditions. The directive introduces minimum requirements for service providers who will certify the identity of digital signature users.

Although signatures based on public-key cryptography are currently the most recognized form of an electronic signature, the directive follows a neutral approach as far as the various technologies and services capable of authenticating data electronically are concerned. This flexible approach takes into account the rapidity of technological development and the global character of the Internet.

For the same reasons, the technical requirements imposed are limited. The directive requires that in order to benefit from equivalent legal standing, a digital signature must have a unique link to the signatory, must have the capacity to identify the signatory, must be linked to the data in such a way that a recipient can detect any subsequent change in the data, and must be developed by a qualified certification process.⁵⁹

The issue of cybersquatting, the bad-faith registration of a company's likely Internet address in an attempt to sell it at extortionate prices, has not been considered by the EU. The matter largely rests in the hands of the WIPO. In late 1999, however, the Commission announced plans for a new domain ending, '.eu', hoping it would supersede national endings such as '.uk' and '.fr'. In doing so, the Commission hopes to make a fresh start in overcoming some of the damage done by cybersquatting.⁶⁰

Security-Payment Mechanisms

Research did not uncover any information.

⁵⁷ Directive 91/250, OJ 1991 L122 of May 17th, 1991, and 93/98, OJ L290 of November 24th 1993.

⁵⁸ Directive 96/9/EC, OJ L77/20 of March 27th 1996.

⁵⁹ Electronic signature directive adopted, Business Europe, December 29, 1999.

⁶⁰ EU: E-commerce copyright and trademark directives, Country Commerce, April 14, 2000.

Participation in New International Standards Development

Research did not uncover any information.

2. Technical and Operational Factors

Protocol (Standards) Making Process

Research did not uncover any information.

Product Restrictions

Research did not uncover any information.

Delivery Infrastructure

Research did not uncover any information.

Availability of Payment Mechanisms

Currently, credit cards are the main form of online payment in the EU. In terms of credit card penetration, the United Kingdom leads the big five countries with 51 percent, followed by Spain with 41 percent, France with 31 percent, Italy with 15 percent and Germany with 12 percent.

With credit card penetration rates low and security issues high, it is speculated that online payment presentation and coupled bills (i.e., buying small goods and services and having it charged to your phone bill, with eCharge's offering a good example) will be key. Additionally, the current credit card ownership landscape is changing as the large credit card issuers expand their push into Europe and as new smart cards with monetary storage emerge.

General Business Laws

Research did not uncover any information.

Public Attitude to E-Commerce

In a survey conducted of adult Internet users in fall 1999, Europeans gave a range of reasons for not purchasing products and services online. Distrust of the payment system (23 percent) and of the shops themselves (11 percent) were most frequently mentioned. Nineteen percent said they found online shopping impersonal and preferred the social contact inherent in traditional shopping. In general, however, the European public is enthusiastic about the possibilities of e-commerce.

Business Attitude to E-Commerce

As in other areas around the globe, Europe suffers from a digital divide in computer literacy. Computer literacy is generally far higher in urban areas than rural areas. Corporations and small to medium enterprises which are the bases of computer usage in Europe are located mainly in metropolitan areas. Inhabitants of rural areas are less likely to view computers as necessary to their livelihoods. Not surprisingly, Europeans living in rural areas are far less likely to have Internet access. Connecting via the local loop is expensive and an unnecessary luxury for those whose way of life is rooted in rural industry. Until dial-up costs decrease significantly, individual investment, especially in rural areas, likely will not change. Public investment to spur computer literacy and Internet usage may be a viable alternative to increase computer literacy.

The EU lacks an adequate dispute resolution system for e-commerce transactions. The threat that companies will have to comply with consumer protection laws of every Member State and face the risk of legal actions across the EU contributes to the stifling of European e-commerce, particularly for small traders.

At the Lisbon Summit, EU leaders gave strong support to the establishment of online mechanisms for alternative dispute resolution (ADR) by Member States. The EC has published proposals to link up ADR schemes across the EU in a European extra-judicial network called EEJ-Net, providing the consumer with security and confidence while minimizing the regulatory burden on business. In the EEJ-Net, clearing houses in each Member State would act as one-stop shops in e-commerce disputes, and would help process crossborder consumer complaints. Businesses would only have to join the ADR scheme of their home country. The Commission has also been pressing ahead with planned reforms to the Brussels and Rome conventions. The reforms would act as a last resort, by allowing the e-consumer to bring suit in the courts of their own country, under applicable local and consumer protection laws.⁶¹

E. CONCLUSION

As a multi-national organization, the European Union illustrates the idea that while the Internet is borderless and global, local conditions matter to the success of e-commerce. Varying conditions still exist among the Member States; strong directives regarding harmonization are still needed. The adoption by the European Parliament of the e-commerce directive in May 2000 is an important step to establishing a reliable legal framework for e-commerce. The adoption of the euro as the single unit of currency, the continued liberalization of telecommunications infrastructure throughout the Union and the increased use of the Internet are the key factors which will lead to significant growth in e-commerce.

Since a sound and prosperous ICT sector is likely to positively affect the economy as a whole, EU policy on telecommunications and the Internet must tackle the regional disparities regarding access to and use of ICTs. Local loop access is crucial for the Internet to be as successful in Europe as it is in the United States. The telecommunications and Internet gap that already exists must be addressed and the positive economic potential of the Internet must be exploited for the general economic welfare of the Union.

Europe has reaped great rewards from coordinated public/private efforts such as the development of GSM. By taking a similar approach to the mobile e-commerce industry, Europe could become the dominant player in this sector.

Recent telecommunications liberalization has meant more competition among companies, resulting in lower prices, more new providers and improved conditions for innovation. All of these lead to more affordable access and therefore a greater number of users.

⁶¹ Commission proposal encourages Internet shopping, Business Europe, April 11, 2000.

Despite this progress, access costs continue to be barriers to growth. Unlimited Internet access is not widely available, leaving less incentive for Europeans to go online to shop. Basic distribution systems like post and rail systems vary among Member States, making distribution unpredictable and unreliable. The current global shortage of IT-skilled labor could become Europe's Achilles heel if actions regarding immigration are not taken immediately.

The disparities among the Member States of the European Union will probably not be fully overcome in the next five years. Increased competition in telecommunications is more likely to emerge in the regions already leading in economic development. In those regions lagging behind, the expectations for Internet and e-commerce growth are much less optimistic. Overall, the future of e-commerce in the EU looks bright but attention must be paid to the gap that threatens to grow between Member States.